

Work Order ID 54471

December 09, 2009 2:00:52 PM

Page 1

Item ID: D209-669-043

Accept

Setup Start

Revision ID:

Stop

Item Name: Replacement Skidtube

Start Date: 12/10/2009 Start Qty: 1.00

Cust Item ID:

Required Date: 12/28/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: umf Date: 09-12-09 Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D2906	Rev B
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100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy D209-669 bluefile & type labels per PPP D205-669-043 Chg 002

N/A

110

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1- Inspect mat'l D2500-1-190 for damage

2-Cut D2500-1-190 per Dwg D2906 if necessary Debur ends

3-Acid etch and Alodine tube per QSI 005 4.1

1 9/12/9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120

QC3- Inspect Part Finish

0.00

2) 8/21/10



QC

Memo

0.00

Quality Control

130

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Drill pilot holes using drill jig DT8149, DT8711-2 & DT8711-3 (Do not use cutting fluid)

2-Open holes to 0.500" as per Dwg D2906 without cutting fluid

3-Deburr and blow out all chips from inside of tube

4-Bond web in place per QSI 015. Allow 12 Hrs. cure time before cutting

Pick: Qty ☐ Part Number ☐ Description ☐ Batch

A/R ☐ ☐ SikaFlex-291 ☐

SikaFlex expire date: 20-02-10

Start Time: 4:05

Date: 9-12-10

Fin Time: _____

Date: _____

pick:

Qty

P/N

description

B/N

1

D2926-3

Web

BS4474

DP 9-12-10

AWM 9-12-10

W/O:		WORK ORDER CHANGES					
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140  CNC Bend 1 CNC Delta 100 Bender	BENDING MACHINE - CROSSTUBES Memo 1-Bend as per program COB43FWD & COBRAFT on CNC Bender and Folio FT 2-Cut tubes as per Dwg. D2906 & per template DT8185B & DT8185BC	0.00 0.00				1	1	9/12/11	
150  Skidtubes Skidtubes Skidtubes	Skidtubes Memo 1-Countersink holes as per Dwg D2906 without cutting fluid 2-Deburr ends 3-Prepare tube for welding, remove alodine as required.	0.00 0.00							
160  QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							

2) 809/12/11

9-12-11

④

⑥

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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

170

0.00



Skidtubes

Large Fab

Memo

0.00

Skidtubes

1-Weld crossbolt spacers D2579 as per Dwg. D2906 and QSI 004.

For D2579 spacers, weld one side, pass 3/8" drill, weld other side, pass 3/8" drill

A/R□□□ Aluminum Rod

m112860 JE 09/12/14

2-Grind welds as per Dwg D2906 Grind flush ridge made from bending

3-Drill holes for wearplates using DT8217 Open holes to 19/64", adjust stopper not to hit web. Debur

4-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2906, Debur holes

5-Drill pilot holes for aft & fwd cap using DT8215 open holes to #6" Debur

6-Drill pilot holes for Tow ring using DT8091-3 , open to .640" and Debur

AWM 9-12-15

180

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

2) 509/12/15

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Cust Item ID:

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00	2) 505/12/15						
200 HandFinish Hand Finishing	Pressure Wash per QSI005 4.3 Memo	0.00 0.00	=> 09-12-16						
210 Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum M 11/31/70 Memo START TIME: 10:30 OVEN TEMPERATURE: 320° FINISH TIME: 11:00	0.00 0.00	BR 09-12-16						

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Cust Item ID:

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

220

QC3- Inspect Part Finish

0.00

=> M. 09-12-16

0.00



QC

Memo

Quality Control

(X) 9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Cust Item ID:

Required Date: 12/28/2009 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Stop



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

230

0.00



HandFinish

Hand Finishing

HandFinishing

Memo

0.00

=> 24 09/12/16

(41)

Ø

1-Install inserts & wearplates as per Dwg. D2906. Use a drop of Sikaflex on
insert holes before installing wearplatesA/R ☐ ☐ ☐ Sikaflex-291 ☐ N1112345

Sikaflex expire date: 10/08

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as
per Dwg D2906

3-Inspect for foreign object per QSI 024

4-Install D2855 Fwd & Aft Cap as per Dwg D2906 and seal Fwd & Aft Cap
with Sikaflex. Clean excess adhesiveA/R ☐ ☐ ☐ Sikaflex-291 ☐ N1112345

Sikaflex expire date: 10/08

5-Wing Walk as per Dwg D2906 and QSI 005 4.4

Batch: N112623

W/O:		WORK ORDER CHANGES					
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Customer:




Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240  QC Quality Control	QC5- Inspect part completeness to step on W/O Memo Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024	0.00 0.00	27	508/12/17		40			
250  Packaging Packaging	Packaging Memo Identify and pack for shipping as per PPPD209-669-043 Location: _____ PPP Rev: _____	0.00 0.00	APP	54 476		9/12/22	50		
260  QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00					09/12/22		

6.09.12.22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

December 09, 2009 2:00:52 PM

Page 1

Work Order ID: 54471



Parent Item: D209-669-043



Parent Item Name: Replacement Skidtube

Start Date: 12/10/2009

Required Date: 12/28/2009

Comments: IPP RevB: revise process 09.11.11 DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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D2500-1-190

Manufactured

No

110

Each

110.0000

1.0000



Ext'n -1' Beam Tube 4"

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

LG

107

50166

6

52319

101

Main Warehouse

ST

3

46468

3

9/12/09

D2926-3

Manufactured

No

110

Each

1.0000

1.0000



Web

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1

52066

1

AWN B-54474 9-12-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

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Work Order ID: 54471



Parent Item: D209-669-043



Parent Item Name: Replacement Skidtube

Start Date: 12/10/2009

Required Date: 12/28/2009

Comments: IPP RevB: revise process 09.11.11 DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2579		Manufactured	No			170	Each	256.0000	19.0000			
Crossbolt Spacer												

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

LG

134

51525

4

53780

130

Main Warehouse

ST

122

43988

4

46434

4

46956

2

47797

9

48272

2

51314

71

51315

30

D2855

Manufactured

No

230

Each

55.0000

2.0000



Cap



Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

FP6

55

50513

1

50770

3

51539

51

B 54543

(19)

BE 09/12/14

x2 Jul 09-12-16

December 09, 2009 2:00:52 PM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Required Date: 12/28/2009

Comments: IPP RevB: revise process 09.11.11 DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00

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---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

AN3-5A		Purchased	No			230	Each	2,037.000	4.0000			
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Bolt

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

2037

100188

188

05057

1849

X4 24 09-12-16

AN960JD10L

Purchased

No

230

Each

5,433.000 4.0000



Washer

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

5433

101291

16

104885

153

105793

236

09632

270

110985

4758

X4 24 09-12-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Required Date: 12/28/2009

Comments: IPP RevB: revise process 09.11.11 DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
ALS7-1032-130		Purchased	No			230	Each	2,426.000	44.0000			



Insert

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	2426	
105855	16	
108606	52	
111529	1034	
111779	313	
112772	11	
113238	1000	

X44 M 09-12-16

AN3C4A

Purchased

No

230

Each

1,489.000

44.0000



BOLT

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	1489	
112314	13	
112720	12	
112724	3	
112829	1	
112991	2	
113121	74	
113226	990	
113359	394	

X44 M 09-12-16

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Comments: IPP RevB: revise process 09.11.11 DD verified by:EC

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Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960C10L  washer		Purchased	No			230	Each	866.0000	44.0000			

Warehouse Location	Loc Qty	Loc Code
OFFSHORE		
FG	100	
103585	100	
Main Warehouse		
ST	766	
112116	428	
112612	160	
112933	178	

NAS1149C0332R/M112314 X44 09-12-16

D2594-3



O-Ring, 205 Skidtube

Manufactured No

230 Each 514.0000 14.0000



Warehouse Location	Loc Qty	Loc Code
Main Warehouse		
FP	27	
51613	27	
Main Warehouse		
ST	487	
52562	487	

X14 09-12-16

W/O:		WORK ORDER CHANGES					
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D2594-1		Manufactured	No			230	Each	281.0000	14.0000			
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Plug, 205 Skidtube

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP

121

54008

121

Main Warehouse

ST

160

42221

16

42807

92

43884

3

46435

2

51527

9

51757

38

X14 24 09-12-16

D3564-9

Manufactured No

230

Each

22.0000

1.0000



Wearshoe

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP19

20

3806

20

Main Warehouse

ST

2

44659

1

45825

1

X14 24 09-12-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 7

December 09, 2009 2:00:52 PM

Work Order ID: 54471



Parent Item: D209-669-043



Parent Item Name: Replacement Skidtube

Start Date: 12/10/2009

Required Date: 12/28/2009

Comments: IPP RevB: revise process 09.11.11 DD verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3564-11		Manufactured	No			230	Each	25.0000	1.0000			



Wearshoe

X *12/10/09*

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

353808

X1 12/09/12/16

FP19

23

52125

14

53808

9

Main Warehouse

ST

2

45823

1

50112

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

December 09, 2009 2:00:52 PM

Work Order ID: 54471

Parent Item: D209-669-043

Parent Item Name: Replacement Skidtube



Comments: IPP RevB: revise process 09.11.11 DD verified by:EC

Start Date: 12/10/2009

Required Date: 12/28/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3564-5  Wearshoe		Manufactured	No			230	Each	25.0000	1.0000 			

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
OFFSHORE		
FG	2	
34806	2	
Main Warehouse		
FP19	21	
51925	1	
53805	20	
Main Warehouse		
ST	2	
45824	1	
47433	1	

X 1 24 04/12/16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

December 09, 2009 2:00:52 PM

Work Order ID: 54471

Parent Item: D209-669-043

Parent Item Name: Replacement Skidtube

Comments: IPP RevB: revise process 09.11.11 DD verified by:EC

Start Date: 12/10/2009

Required Date: 12/28/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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D3566-1		Manufactured	No			230	Each	22.0000	2.0000			
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Gasket

Warehouse	Loc Qty	Loc Code
-----------	---------	----------

Location

Main Warehouse

FP

17

52512

3

53790

14

Main Warehouse

ST

5

46349

1

51218

1

51259

3

X1

09/12/11

D3566-5		Manufactured	No			230	Each	26.0000	1.0000			
---------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--



Gasket

Warehouse	Loc Qty	Loc Code
-----------	---------	----------

Location

Main Warehouse

FP

22

53804

22

Main Warehouse

ST

4

36113

1

46186

1

47318

1

51260

1

X1 09-12-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

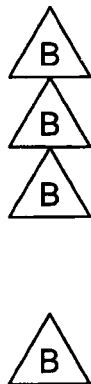
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

#54471



QTY -041	QTY -043	Part Number	Description
X		D2906-041	SKIDTUBE ASSEMBLY
	X	D2906-043	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
22	19	D2579	CROSS BOLT SPACER
12	14	D2594-1	PLUG
12	14	D2594-3	O-RING
2	2	D2855	AFT CAP
1		D2926-1	WEB
	1	D2926-3	WEB
1	1	D3564-9	WEARSHOE (REPLACES D2577-1)
1	1	D3564-11	WEARSHOE (REPLACES D2577-3)
1	1	D3564-5	WEARSHOE (REPLACES D2577-5)
1		D3564-15	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1		D3566-15	GASKET
50	44	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or ALS4-1032-130	INSERT
50	44	AN3C4A	BOLT
4	4	AN3-5A	BOLT
50	44	AN960C10L	WASHER
4	4	AN960JD10L	WASHER

GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 2) LENGTH OF D2500-1 EXTRUSION BEFORE BENDING = 190 INCHES.
- 3) INSERT D2926-1/-3 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 6) USE DART DRILL TEMPLATE DT2906-041T1 (D2906-041) OR DT2906-043T1 (D2906-043) TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION C-C AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/291.
- 7) WELDING TO BE DONE PER DART QSI 004.
- 8) FINISH:
ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2926-1/-3 WEB. POWDER COAT ASSEMBLY WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4
- 9) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (12 PLACES).
- 10) ALL DIMENSIONS ARE IN INCHES.

RELEASED

07.09.04

B	UPDATE DRAWING FORMAT; RE-ORGANIZE; ADD STAINLESS STEEL WEARPLATES AND GASKETS CHANGE WEARPLATE HARDWARE TO SS; PG 1: ADD NOTE 10; PG 2 C7: REMOVE AFT Ø0.640 HOLE FROM -041; PG 3 C3: CORRECTED -043 CAP P/N; PG 3 D7: 38 PLACES WAS 44 PLACES;	CB	07.08.21
A	NEW ISSUE	CP	04.06.22
REV.	DESCRIPTION	BY	DATE
DESIGN	qp	DART AEROSPACE LTD	
DRAWN	C.B.	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. B
MFG. APPR.	PH	D2906	SHEET 1 OF 3
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	AH-1 (209) SKIDTUBE ASSEMBLY	NTS
DATE	07.08.21	COPYRIGHT © 2004 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
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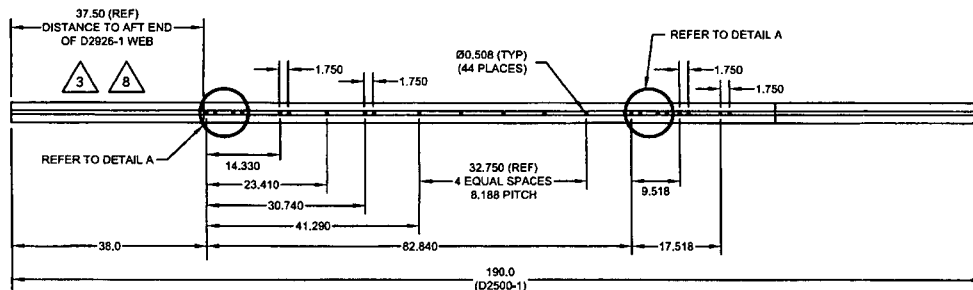
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

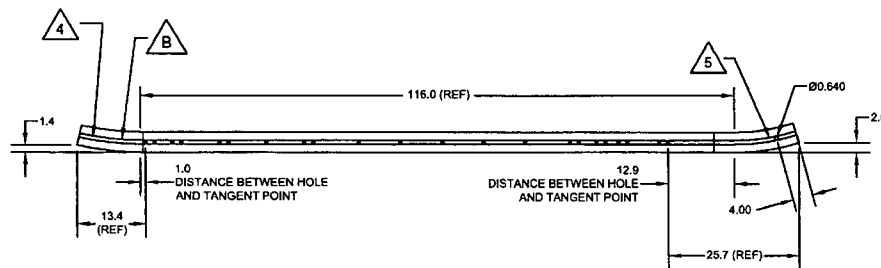
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

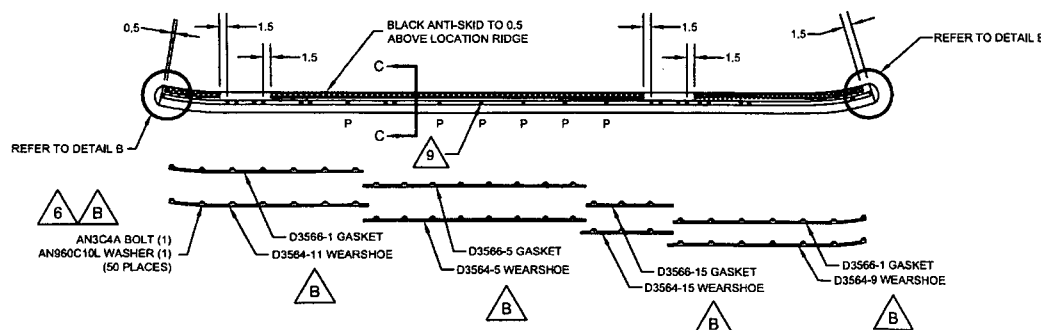
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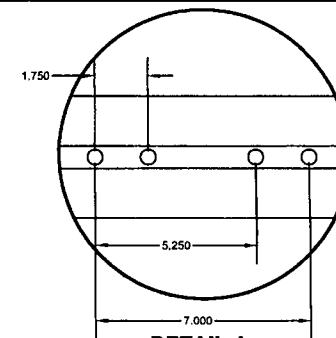
D2906-1 DRILLING DETAIL



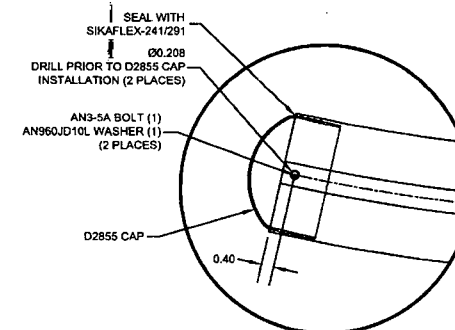
D2906-041 BENDING AND CUTTING DETAIL



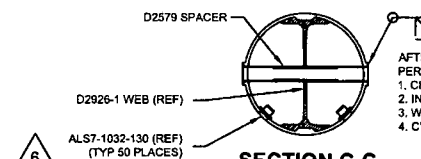
D2906-041 ASSEMBLY DETAIL



**DETAIL A
SCALE 1:4**



**DETAIL B
SCALE 1:4**



**SECTION C-C
SCALE 1:4**

RELEASED
07.09.04

AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:
1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2578 SPACER (22 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2578 SPACER TO Ø0.437 X 1.00 DEEP

DESIGN	PH	DART AEROSPACE LTD	
DRAWN	CB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. B
MFG. APPR.	PH	D2906	SHEET 2 OF 3
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	AH-1 (209) SKIDTUBE ASSEMBLY	1:2
DATE	07.08.21	COPYRIGHT © 2004 BY DART AEROSPACE LTD	
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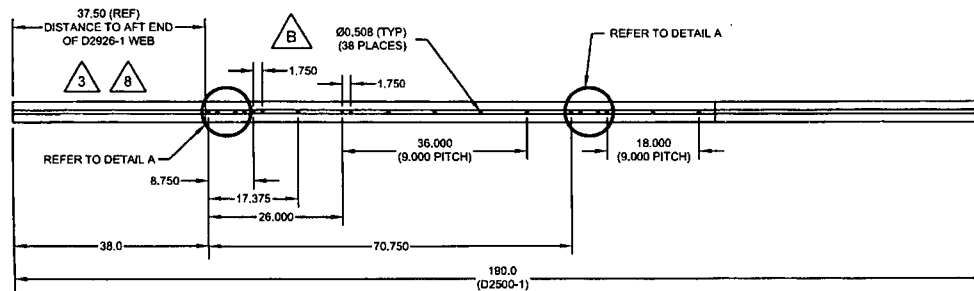
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

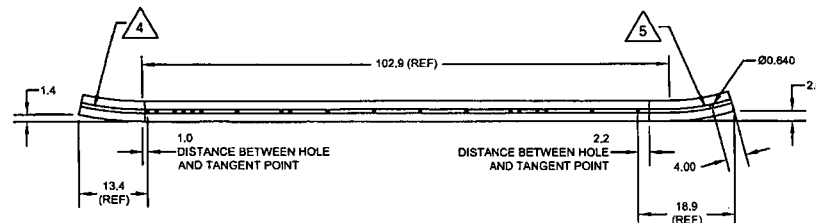
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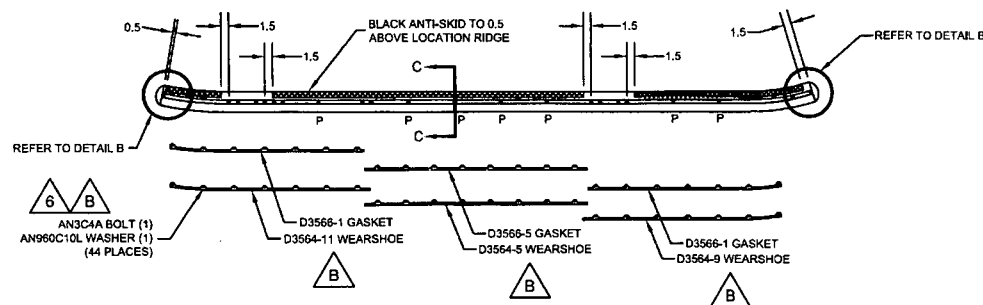
NOTE: Date & initial all entries



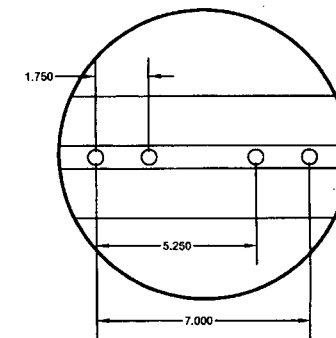
D2906-3 DRILLING DETAIL



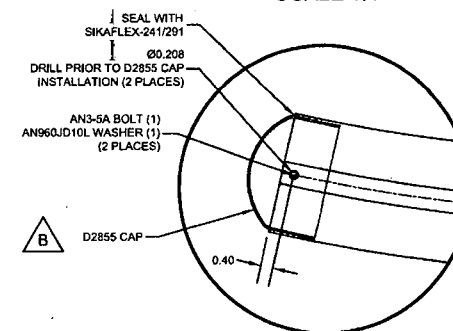
D2906-043 BENDING AND CUTTING DETAIL



D2906-043 ASSEMBLY DETAIL



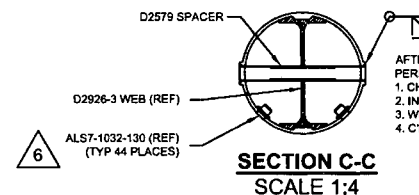
**DETAIL A
SCALE 1:4**



**DETAIL B
SCALE 1:4**

RELEASED

07.09.04



**SECTION C-C
SCALE 1:4**

AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:
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3. WELD INTO PLACE AND GRIND FLUSH
4. CBORE D2579 SPACER TO Ø0.437 X 1.00 DEEP

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DRAWN	C.B.	HAWKESBURY, ONTARIO, CANADA.	
CHECKED	PH	DRAWING NO.	REV. B
MFG. APPR.	PH	D2906	SHEET 3 OF 3
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	AH-1 (209) SKIDTUBE ASSEMBLY	1:24
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 219

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 53918
Part number: D205-634-041
Description: 205 skid
Welding Process: Tig[☒] Mig[]
Base material: Aluminum
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier Pat. Dowl Date of Test Coupon 09.12.04
Welder Barclay Elliott Date of Test Coupon 09.12.04

The above named individual is qualified in accordance with AWS D17.1.2001 to weld